13-15 of co-pending application number 09/844,439. The Applicants respectfully traverse the rejections based on the following points.

Independent claims 1, 20, 29, and 42 recite features wherein a communications pipe is generated between a PSD and a remote computer system over a network by: (1) directly encapsulating APDUs coming from the PSD interface of a client into outgoing messages sent to the remote computer system over the network and (2) directly routing, to the PSD interface, the APDUs desencapsulated by the client from messages received from the remote computer system over the network.

It is submitted that DiGiorgio fails to anticipate the above subject matter, for reasons set forth below.

DiGiorgio describes a system for establishing communication between a PSD (i.e., smart card 10) and a remote computer system (i.e., remote server 16) over a network. This system has a local client (i.e., computer system 14) for use as a host to the PSD. The local client includes a means, having a reader 12, for functionally connecting to a PSD interface and the network, which is between computer system 14 and remote server 16. The local client also has a means for functionally communicating over the network with the remote computer system.

More specifically, DiGiorgio discloses that computer system 14 has a client communications means for transmitting and receiving

message packets over the network using a packet based communications protocol (DiGiorgio col. 5, lines 47-56). The client communications means transmits and receives APDUs to and from smart card 10 through reader 12 (col. 9, lines 1-6). The command APDU 100, depicted in Fig. 8A, and the response APDU 101, depicted in Fig. 8B, are exchanged between smart card 10 and computer system 14 (col. 9, lines 6-15).

However, DiGiorgio does not disclose exchanging an APDU between smart card 10 and remote server 16. Therefore, the two-way challenge response authentication between smart card 10 and remote server 16, described in column 10, lines 24-35, does not include an exchange of APDUs between smart card 10 and remote server 16.

On the contrary, authentication messages exchanged between smart card 10 and remote server 16 are exchanged in two steps:

- messages are exchanged between computer system 14 and remote server 16 over the network, using a packet based communications protocol; and

- messages are exchanged between computer system 14 and smart card 10, using APDUs. Therefore, although not specified, computer system 14 may have a first data processing means for receiving incoming messages from remote server 16, using the client communications means, and for separating encapsulated APDUs from the incoming messages, in case these incoming messages include

APDUs. Computer system 14 may also have a second data processing means for encapsulating APDUs into outgoing message packets and routing the outgoing message packets to remote server 16 through the communications means.

But, despite APDU messages being exchanged between computer system 14 and smart card 10, these APDUs are not the APDUs separated by computer system 14 from incoming messages received from remote server 16.

Therefore, DiGiorgio differs from the present claims in that the first data processing means are not suitable for routing those APDUs which are separated from incoming message packets to the PSD through the reader 12. On the contrary, according to what is described by DiGiorgio in column 9, the APDUs transferred to smart card 10 by computer system 14 are generated by computer system 14 itself.

Moreover, nothing is described in DiGiorgio's specification concerning incoming APDUs, from smart card 10, that would be directly encapsulated by computer system 14 into message packets to be transferred to remote server 16.

Therefore, DiGiorgio also differs from claim 1 in that the second data processing means are not suitable for encapsulating, into outgoing message packets, those APDUs which are received from smart card 10 through reader 12. DiGiorgio provides no description

of how computer system 14 transfers messages received from the PSD to remote computer server 16.

In summary, DiGiorgio does not disclose generating a communications pipe between a PSD and a remote computer system over a network by: (1) directly encapsulating APDUs coming from the PSD interface of a client into outgoing messages sent to the remote computer system over the network and (2) directly routing, to the PSD interface, the APDUs desencapsulated by the client from messages received from the remote computer system over the network.

An aim of the invention defined by claim 1 is to overcome the problem of security within client terminals connected to a network, like the Internet, by generating a communications pipe between a PSD and a secured remote computer system, which enables an APDU interface and security mechanisms to be relocated to the secured remote computer system.

Accordingly, the Applicants respectfully submit that DiGiorgio does not anticipate the subject matter defined by claim 1. Independent claims 20, 29, and 42 similarly recite the above-described features distinguishing apparatus claim 1 from DiGiorgio, but with respect to methods. For similar reasons that these features distinguish claim 1 from DiGiorgio, so too do they distinguish claims 20, 29, and 42. Brown has been cited only

against dependent claims 18 and 40 and does not cure the above-noted deficiencies of DiGiorgio.

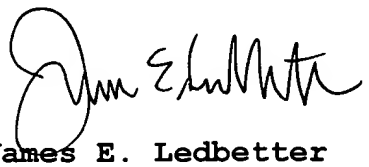
Therefore, allowance of claims 1, 20, 29, and 42 and all claims dependent therefrom is warranted.

The Applicants respectfully request deferral of treatment of the double patenting rejection until the pending claims are indicated as allowable over DiGiorgio and Brown and until its provisional status is removed.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,



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JEL/DWW/att

James E. Ledbetter
Registration No. 28,732

Attorney Docket No. L741.01101
STEVENS DAVIS, MILLER & MOSHER, L.L.P.
1615 L Street, N.W., Suite 850
P.O. Box 34387
Washington, D.C. 20043-4387
Telephone: (202) 785-0100
Facsimile: (202) 408-5200